

Amendments to the Drawings

The attached sheet of drawings includes changes to Fig. 2. This sheet, which includes Figs. 2-3, replaces the original sheet including Figs. 2-3. In Figure 2, reference numeral 22 has been removed.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

Remarks

Applicants have received and carefully reviewed the Office Action mailed February 6, 2007. Claims 5-32 are pending with claims 5, 6, and 10-22 withdrawn from consideration. Claims 7 and 30 have been amended. Support for the amendments is found in the specification, claims, and drawings as originally filed. No new matter has been added. Reconsideration and allowance of the pending claims are respectfully requested.

Specification Objection

The specification is objected to for informalities. The specification has been amended as suggested by the Examiner. Withdrawal of the objection is respectfully requested.

Drawing Objection

The drawings are objected to for including reference character 22 in Fig. 2, which is not recited in the specification. Fig. 2 has been amended to remove the reference character. Withdrawal of the objection is respectfully requested.

Claim Objection

Claim 30 is objected to for reciting an abbreviation without reciting the full term. The claim has been amended to define "LN₂" according to the description in the specification at page 23, line 17. Withdrawal of the objection is respectfully requested.

Rejection under 35 U.S.C. § 101

Claims 7-9 and 23-32 are rejected because the components recited in independent claim 7 are software per se. Independent claim 7 has been amended to recite a computer system and thus recites a physical component or physical device. Withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 7-9 and 23-32 are rejected as being unpatentable over Flanigan (US 6,266,428) in view of Wang et al. (US 5,982,486). The Examiner asserts that Flanigan discloses a simulator system including a chemical agent detection environment simulation, pointing to column 3, lines 12-15 and Fig. 20 for support. Applicants respectfully disagree. Flanigan does not appear to teach a chemical agent detection environment simulation, as is recited in independent claim 7. Flanigan appears to teach "a system for detecting and discriminating a hazardous cloud in a field of view" that "provides for real-time imaging of hazardous vapor and aerosol clouds from a sensor mounted on either a static or moving platform." See column 3, lines 41-43 and column 4, lines 49-51. Flanigan also teaches simulating Δ^2L using a 3-layer model, where Δ^2L is the difference between radiances actually induced by a cloud. See column 6, line 66 through column 7, line 1. Flanigan does not appear to teach the claimed chemical agent detection environment simulation device.

The Examiner acknowledges that Flanigan fails to disclose a background measurement environment interferogram source, but asserts that it would have been obvious to one of ordinary skill in the art to combine the teachings of Wang et al. with Flanigan because it would have been convenient to use a background measurement environment interferogram source such as the FTIR spectrometer taught by Wang for the system of Flanigan to remotely detect and discriminate hazardous clouds in a field of view. Applicants respectfully disagree. Flanagan appears to teach several disadvantages of using the FTIR sensors/systems. See column 2, lines 15-29. Flanagan then teach

a system for detecting and discriminating a hazardous cloud in a field of view, the system comprising: detector means for (i) taking a first Δ^2L spectrum in the field of view at a first spectral resolution and (ii) taking a second Δ^2L spectrum in the field of view at a second spectral resolution which is higher than the first spectral resolution;

See column 3, lines 41-47. Flanagan thus appears to teach advantages of using a system based on Δ^2L spectrum measurements instead of conventional FTIR systems, such as that taught by Wang et al. Applicants submit that because of Flanagan's teachings regarding the disadvantages

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of the FTIR systems, there is no motivation for the skilled artisan to combine the teachings of Wang et al. with Flanagan. Flanagan appears to teach away from such a combination.

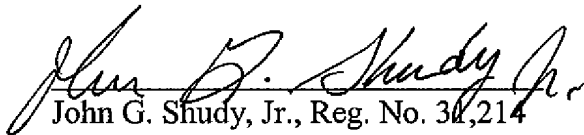
Regarding claim 23, neither Flanagan nor Wang et al. appear to teach a simulated sensor output. The language quoted by the Examiner on page 7 of the Office Action with regard to claim 23 does not appear to be found in either Flanagan or Wang et al. Regarding claim 31, neither Flanagan nor Wang et al. appear to teach a sensor response removal module. The detector array of Flanagan appears to be two detectors used in tandem, but does not appear to provide a sensor response removal module.

For at least the reasons set forth above, neither Flanagan, Wang et al., nor a combination thereof appears to teach or suggest the elements of the claims. Reconsideration and withdrawal of the rejection are respectfully requested.

Reconsideration and reexamination are respectfully requested. It is submitted that, in light of the above remarks, all pending claims are now in condition for allowance. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-677-9050.

Respectfully submitted,

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